

## AMENDMENT(S) TO THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims on the application. All claims are set forth below with one of the following annotations.

- (Original): Claim filed with the application.
  - (Currently amended): Claim being amended in the current amendment paper.
  - (Canceled): Claim cancelled or deleted from the application. No claim text is shown.
  - (Withdrawn): Claim still in the application, but in a non-elected status.
  - (New): Claim being added in the current amendment paper.
  - (Previously presented): Claim added or amended in an earlier amendment paper.
  - (Not entered): Claim presented in a previous amendment, but not entered or whose entry status unknown. No claim text is shown.
1. (Cancelled)
  2. (Cancelled)
  3. (Cancelled)
  4. (Currently amended) A computer implemented method for storing and managing a plurality of bills of material (BOMs) comprising:
    - accepting information for a storing the plurality of BOMs in a processing system, each BOM describable as a tree with each node an element, each element in each BOM having an owner of a set of more than one owner, and each BOM having an owner of the set of owners;
    - storing the plurality of BOMs in a processing system; and
    - providing access to at least some of the information of one or more of the plurality of BOMs to one or more users according to control information, control information for providing access to a particular

BOM being received from an entity that is the owner of the particular BOM and/or any entity that the owner of the BOM designates, such that the providing of further access to at least some of the information of a particular BOM is controlled by the entity that is the owner of the particular BOM and/or by any entity that the owner of the BOM designates,

such that BOMs associated with different owners are stored in the same processing system; ~~an owner associated with a particular BOM being an entity that controls access to all the information in the particular BOM,~~

wherein for each of at least two different owners, at least one of the BOMs of the respective owner includes confidential information of the owner, such that ~~that~~ unrestricted access to the confidential information is limited to the owner of the BOM ~~and/or to any designates of entity that~~ the owner of the BOM designates; and

wherein the different owners need not be related except that they each have information stored in the same processing system.

5. (Cancelled)
6. (Previously presented) A method as recited in claim 4, wherein the BOMs are stored remotely, and wherein access to the BOMs is provided remotely.
7. (Currently amended) A method as recited in ~~claim 7~~ claim 4, wherein the storing of the BOMs includes:

storing one or more data structures in the processing system for storing the plurality of BOMs,

the method further comprising:

storing a list of elements in the processing system, each element in the list of elements having a unique element identifier, each element in

each BOM being one of the elements in the list of elements,  
such that the list of elements and the one or more data structures are part of a  
database stored in the same processing system.

8. (Previously presented) A method as recited in claim 7, further comprising:

providing unrestricted access to any confidential information in a  
particular stored BOM only to the owner associated with the particular  
BOM and to none or more designates of the owner.

9. (Currently amended) A method as recited in ~~claim 5~~ claim 7, wherein each  
of one or more elements in the element list is associated with a respective  
owner of the set of owners, and wherein the list of elements includes an  
indication of ownership for each element associated with one of the owners,  
the method further comprising:

restricting access to information about a particular element in the  
element list that is associated with a particular owner to the particular  
owner and none or more designates of the particular owner.

10. (Currently amended) A computer implemented method for managing a  
plurality of bills of material (BOMs) comprising:

~~storing~~ accepting information for a database in a processing system,  
the database including:

a list of elements, each element having a unique identifier,  
one or more elements of the list of elements being for inclusion  
in one or more of the plurality of BOMs; and

one or more data structures for storing the plurality of BOMs,  
each BOM describable as a tree with each node an element of  
the list of elements, at least two of the BOMs being associated  
with different respective owners of a set of ~~owners~~; owners;

storing the database in a processing system; and

providing remote access to one or more elements of information in the database to one or more users according to control information, control information for providing access to elements of a particular BOM being received from an entity that is the owner of the particular BOM and/or any entity that the owner of the BOM designates, such that the providing of further access to at least some of the information of a particular BOM is controlled by the entity that is the owner of the particular BOM and/or by any entity that the owner of the BOM designates,

such that the database is arranged to contain BOMs associated with different owners,

wherein for each of at least two different owners, at least one of the BOMs of the respective owner includes confidential information of the owner, such that ~~that~~ unrestricted access to the confidential information is limited to the owner of the BOM and any designates of the owner of the BOM, and

wherein the different owners need not be related other than in that they each have information stored in the same processing system.

11. (Cancelled).
12. (Previously presented) A method as recited in claim 10, wherein one or more elements in the element list are associated with a respective owner of the set of owners, and wherein the list of elements includes an indication of ownership for each element associated with one of the owners, the method further comprising:

restricting access to information about a particular element in the element list that is associated with a particular owner to the particular owner and none or more designates of the particular owner.

13. (Currently amended) A method as recited in claim 10, wherein the database is ~~arranges~~ arranged such that a first BOM of a first owner may share one or more elements of the list of elements with a second BOM of a second owner.

14. (Cancelled).

15. (Currently amended) A computer-implemented method for managing a plurality of bills of material (BOMs) comprising:

storing accepting information for a database in a processing system,  
the database including:

a list of elements, each element having a unique identifier,  
one or more of the elements being for inclusion in at least one of  
the BOMs; and

one or more BOM data structures for storing the plurality of  
BOMs, each BOM describable as a tree with each node an  
element of the list of elements and each branch of the tree  
defining a parent-child relationship, the one or more BOM data  
structures storing information on the parent-child relationships of  
the plurality of BOMs, two or more of the BOMs associated with  
a respective owner of the set of owners; ~~and;~~

storing the database in a processing system; and

providing remote access to one or more elements of information in  
the database to one or more users according to control information,  
control information for providing access to elements of a particular  
BOM being received from an entity that is the owner of the particular  
BOM and/or any entity that the owner of the BOM designates, such that  
the providing of further access to at least some of the information of a  
particular BOM is controlled by the entity that is the owner of the

particular BOM and/or by any entity that the owner of the BOM designates,

such that the database is arranged to contain BOMs having different owners, wherein the database includes confidential information of at least two of the owners such that ~~that~~ unrestricted access to the confidential information is limited to the respective owner of the confidential information and any designates of the owner, and

wherein the different owners need not be related other than in that they each have information stored in the same processing system.

16. (Previously presented) A method as recited in claim 15, wherein a BOM of a particular owner includes confidential information, and wherein the confidential information of the particular owner includes the BOM confidential information.
17. (Previously presented) A method as recited in claim 15, wherein providing remote access includes providing remote access via a public network.
18. (Previously presented) A method as recited in claim 17, wherein the public network is the Internet.
19. (Previously presented) A method as recited in claim 15, wherein one or more elements in the element list is associated with a respective owner of the set of owners, wherein the list of elements includes an indication of ownership for each element associated with one of the owners, and wherein the confidential information of an owner that owns a element in the list of elements includes confidential information in the list of elements,  
  
such that unrestricted access to confidential information about a particular element in the element list that is associated with a particular owner is limited to the particular owner and none or more designates of the particular owner.

20. (Previously presented) A method as recited in claim 15, wherein a first BOM of a first owner may share one or more elements of the list of elements with a second BOM of a second owner.
21. (Previously presented) A method as recited in claim 15, wherein each element in the element list is one the set consisting of a physical element and a process, wherein the physical element may itself be a BOM and wherein the process that may reference a set of steps or operations.
22. (Previously presented) A method as recited in claim 15, wherein each BOM data structure is for storing the parent-child relationships for at least one BOM of the plurality of BOMs, and wherein a BOM data structure includes, for a particular BOM, an entry for each element in the particular BOM, said element entry including a reference to the element's entry in the list of elements, an entry indicating the owner, and an entry indicating any child of the element in the case the element has a child in the tree representing the particular BOM.
23. (Previously presented) A method as recited in claim 22, wherein the parent child relations for all the BOMs are stored in a single BOM data structure.